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Pyridine and Quinoline Derivates of Dibenzofuran, and Their Physiological Properties

Willard H. Kirkpatrick
Iowa State College

Henry Gilman
Iowa State College

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have the same effect upon nitrogen content and weight; breaking strength is decreased 50 percent by 0.03 *N* sodium hydroxide and by 0.9 *N* hydrochloric acid.

DEPARTMENT OF CHEMISTRY,

IOWA STATE COLLEGE,

AMES, IOWA.

HYDROLYSIS OF PHENYL FURYL KETIMINE — THE RELATIVE NEGATIVITY EFFECT

J. B. CULBERTSON AND LEONARD HINES

Phenyl furyl ketimine hydrochloride has been prepared and the velocity of its hydrolysis to the corresponding ketone measured. The velocity constant has been found to be of the order of 10×10^{-8} measured at 25°C. The constant for diphenyl ketimine hydrochloride is 5.5×10^{-8} measured at 0° or about 50×10^{-8} when calculated to 25°. In view of the generally considered more highly negative character of the furyl radical over the phenyl, this result is in line with an observed rule that the ketimine salts are more resistant to hydrolysis the more negative the radicals attached to the carbimino group. The hydrolytic velocities of these and other ketimines already studied are compared on the basis of Kharasch's table of relative negativities of aromatic radicals.

DEPARTMENT OF CHEMISTRY,

CORNELL COLLEGE,

MT. VERNON, IOWA.

PYRIDINE AND QUINOLINE DERIVATIVES OF DIBENZOFURAN, AND THEIR PHYSIOLOG- ICAL PROPERTIES

WILLARD H. KIRKPATRICK AND HENRY GILMAN

A study is in progress of the physiological properties, particularly the narcotic action, of amino and substituted aminodibenzofurans and their nuclear reduction products. The amino compounds in many cases are cyclicized to give pyridino-dibenzofurans. Simple illustrations of parent types are the quinolines derived by Shraup and other syntheses from the amino dibenzofurans and their reduction products. The nitrogen cycles have been extended to include bridging of rings which vary both in kind and position of substituents as well as in degree of nuclear reduction.

IOWA STATE COLLEGE,

AMES, IOWA.